

Work Order ID 70121

Friday, May 27, 2011 10:34:29 AM



Page 1

Item ID: D4308-042

Accept



Setup Start



Revision ID:

Item Name: Step, RH Crew

Stop



Start Date: 6/2/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 6/3/2011 Req'd Qty: 2.00

Customer:

Reference:

Approvals:

Process Plan:

N

Date: 11-05-27

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4308

A

100

0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

1-Cut D4308-1 using D2622 extrusion as per Dwg D4308
2-Drill, c'sink one hole on top of step as per dwg
3-Deburr and bevel ends for welding

11-05-28

2

Ø

110

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

8 w/lost 30

(+2)

120

Weld per dwg A/R Aluminum rod Batch: *M114703* 0.00

Large Fab

M113928

Large Fab

Memo

0.00

Large Fab

1-Weld end cap (ONE END ONLY)
2-Grind end cap welds flush
3-weld lugs as per Dwg D4308

11-05-30

2

Ø

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng.	Action Description Chief Eng		Sign & Date			






NOTE: Date & initial all entries



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Page 2

Item ID: D4308-042 Accept  Setup Start 
Revision ID:
Item Name: Step, RH Crew Stop 
Start Date: 6/2/2011 Start Qty: 2.00  Cust Item ID:
Required Date: 6/3/2011 Req'd Qty: 2.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  QC Quality Control	QC9- Inspect visual per QSI004- Fusion Welds Memo	0.00 0.00				2	0	2E, 11/05/31	
140  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							8 11/05/31
150  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00							X2RH 90 11/05/31



W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Work Order ID 70121

Friday, May 27, 2011 10:34:29 AM



Page 3

Item ID:	D4308-042	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Step, RH Crew					
Start Date:	6/2/2011	Start Qty:	2.00		Cust Item ID:	
Required Date:	6/3/2011	Req'd Qty:	2.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				2	0	1531	
170 Large Fab Large Fab	Weld per dwg A/R Aluminum rod Batch: 114703 Large Fab Memo 1-Inspect for foreign object per QSI 024 2-Weld Remaining end cap as per Dwg D4308 3-Grind end cap weld flush as per dwg D2841 4- install rivert as per dwg	0.00 0.00				2	0		8/11.06.01
180 QC Quality Control	QC10- Inspect visual per QSI004- ground welds Memo	0.00 0.00							8u/06/01

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Work Order ID 70121

Friday, May 27, 2011 10:34:30 AM



Page 4

Item ID:	D4308-042	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Step, RH Crew					
Start Date:	6/2/2011	Start Qty:	2.00		Cust Item ID:	
Required Date:	6/3/2011	Req'd Qty:	2.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				<u>x2</u> RH			
200 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				2x RH			
210 SprayPaint Spray Painting	Spray Painting per QSI005 4.2 Memo ***BLUE***	0.00 0.00							

2x M. J. 6/10/06/01
RH

2x 11-06-02 (2)

primer 117319
paint 115985
clear 117101

PTO

Dart Aerospace Ltd

W/O: 70121		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
DAM 11-06-03	211	QC14		VB	11-06-03	2	VB 29142	VB 11-06-03

Part No: D4308-042 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			





NOTE: Date & initial all entries



Work Order ID 70121




Friday, May 27, 2011 10:34:30 AM



Page 5

Item ID: D4308-042 Accept  Setup Start 
Revision ID: Stop 
Item Name: Step, RH Crew
Start Date: 6/2/2011 Start Qty: 2.00  Cust Item ID:
Required Date: 6/3/2011 Req'd Qty: 2.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
215  HandFinish Hand Finishing	Wing Walk as per dwg QS1005 4.4 Batch <u>117863</u> Memo	0.00				2	BL	11-6-6	
220  QC Quality Control	QC3- Inspect Part Finish Memo	0.00				2	φ	11/06/06	
230  Packaging Packaging	Identify as per dwg & Stock Location: <u>403</u> Memo	0.00				11/06/06	SH2		

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 70121

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Page 6

Item ID: D4308-042

Accept



Setup Start



Revision ID:

Stop



Item Name: Step, RH Crew

Start Date: 6/2/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 6/3/2011 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/6/11

CL11106105

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, May 27, 2011 10:34:37 AM

Page 1

Work Order ID: 70121

Parent Item: D4308-042

Parent Item Name: Step, RH Crew



Start Date: 6/2/2011

Required Date: 6/3/2011

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A 11.01.07 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured

No

Each

64.0000

0.1



Step Extrusion



11.05.28

Location

Loc Qty

Loc Code

HALL

6

64409

6

WA

58

46910

2

66970

56

0.1

D2734

Manufactured

No

120

Each

68.0000

1

2



Step End Plate



11.05.30

Location

Loc Qty

Loc Code

WA

45

69537

45

WA015

23

66143

23

2

D3458-1

Manufactured

No

120

Each

31.0000

1

2



Step Mounting Plate



11.05.30

Location

Loc Qty

Loc Code

WA018

31

63075

31

2

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 2

Friday, May 27, 2011 10:34:38 AM

Work Order ID: 70121

Parent Item: D4308-042

Parent Item Name: Step, RH Crew

Start Date: 6/2/2011

Required Date: 6/3/2011

Start Qty: 2.00

Required Qty: 2.00

D3458-3

Manufactured No

120

Each

38.0000

1

2



Step Mounting Plate



11.05.230

Location

Loc Qty

Loc Code

WA018

38

63076

38

2

D2734

Manufactured No

170

Each

68.0000

1

2



Step End Plate



11.06.01

Location

Loc Qty

Loc Code

WA

45

69537

45

WA015

23

66143

23

2

M520601AD402

3114945

2 11.05.28

Friday, May 27, 2011 10:34:38 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

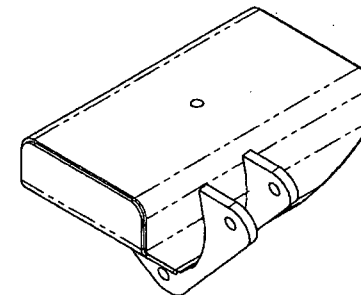
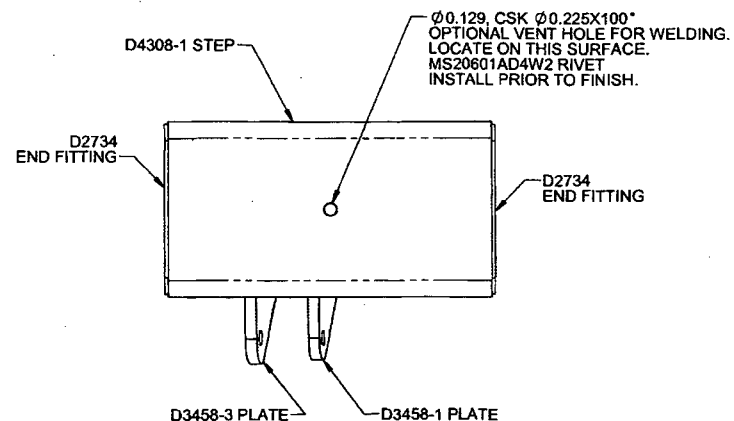
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

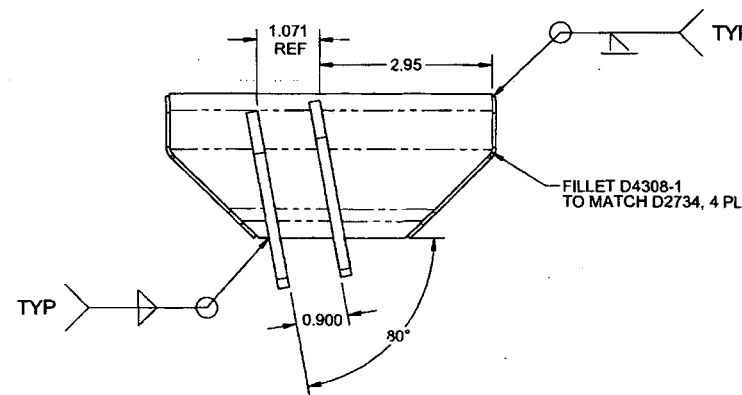
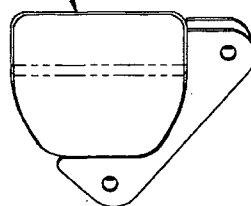
NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY -041	P/N	DESCRIPTION
1	X	D4308-041	STEP, LH CREW
2	1	D4308-1	STEP
3	2	D2734	END PLATE
4	1	D3458-1	PLATE
5	1	D3458-3	PLATE
6	1	MS20601AD4W2	RIVET (OPTIONAL)



2 APPLY BLACK ANTI-SKID ON TOP SURFACE TO BOTTOM OF TOP RADIUS



D4308-041 STEP, LH CREW

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: P/N & B/N PER DART QSI 044 6.6 (REMOVABLE TAG)
- 7) WEIGHT: 0.47 lb
- 8) WELDING: PER DART QSI 004

A	NEW ISSUE	CP	10.12.17
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.12.17		

RELEASED
2011-05-26

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO. **D4308**
REV. A
SHEET 1 OF 3
TITLE **STEP, CREW**
SCALE
NTS

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W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

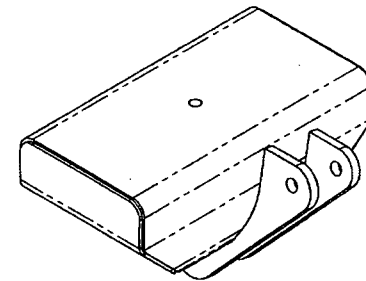
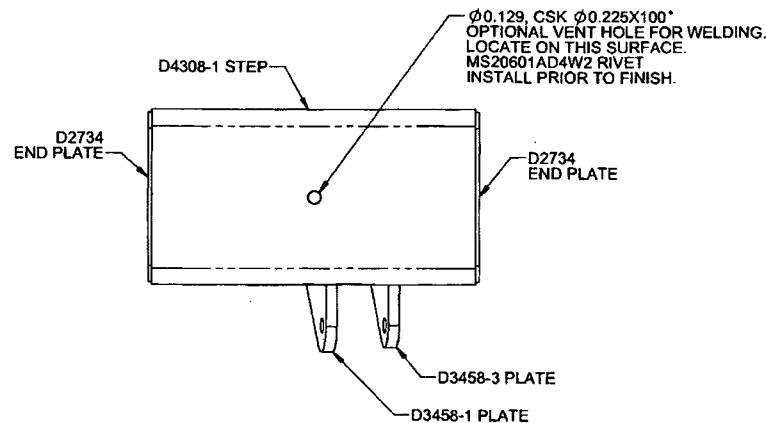
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

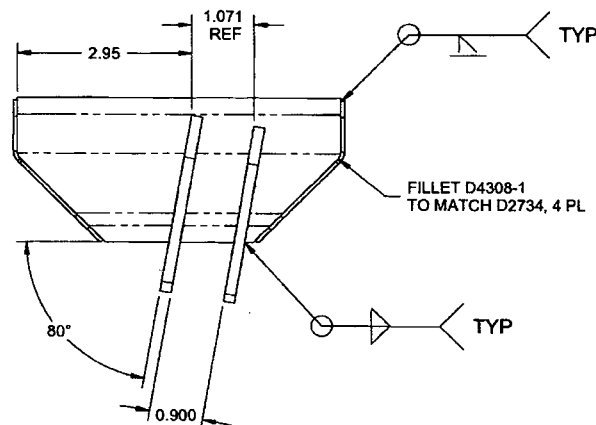
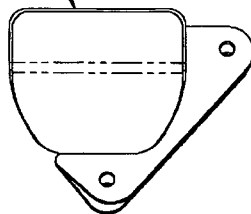
NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY -042	P/N	DESCRIPTION
1	X	D4308-042	STEP, RH CREW
2	1	D4308-1	STEP
3	2	D2734	END PLATE
4	1	D3458-1	PLATE
5	1	D3458-3	PLATE
6	1	MS20601AD4W2	RIVET (OPTIONAL)



2 APPLY BLACK
ANTI-SKID ON TOP
SURFACE TO BOTTOM
OF TOP RADIUS



D4308-042 STEP, RH CREW

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: P/N & B/N PER DART QSI 044 6.6 (REMOVABLE TAG)
- 7) WEIGHT: 0.47 lbs
- 8) WELDING: PER DART QSI 004

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4308	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		STEP, CREW	NTS
DATE	10.12.17	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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RELEASED
2011-05-24

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

D

C

B

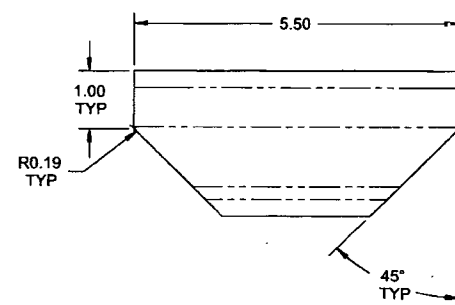
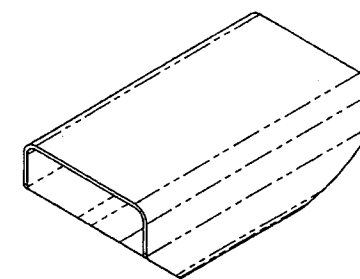
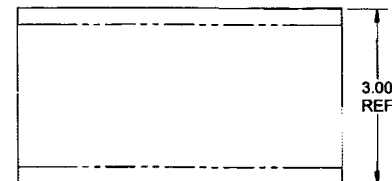
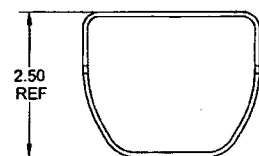
A

D

C

B

A



D4308-1 STEP

RELEASED
2011-05-23
JW

- NOTES:**
- 1) MATERIAL: MAKE FROM D2622 EXTRUSION
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.33 lbs

DESIGN	92	DART AEROSPACE LTD	
DRAWN	ASS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ASS	DRAWING NO.	REV. A
MFG. APPR.	ASS	D4308	SHEET 3 OF 3
APPROVED	ASS	TITLE	SCALE
DE APPR.	ASS	STEP, CREW	NTS
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8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES						
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			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

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